	Application No.	Applicant(s)
Notice of Allowability	09/802,997	ODAGIRI ET AL.
	Examiner	Art Unit	
	Tia A Carter	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *3/12/01*.

2. ☒ The allowed claim(s) is/are *1-34*.

3. ☒ The drawings filed on *12 March 2001* are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date *3/12/01*

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Allowable Subject Matter

1.   Claims 1-34 are allowed.

2.   The following is an examiner's statement of reasons for allowance:

The following limitations disclosed overcame the teachings of the prior art

searched and cited:

Claim 1 cites: A method for extracting at least one representative color signal value

representing each color region from each of plurality of color regions in a color chart

image comprising the steps of:

A region deciding step of deciding a color signal value extracting region for each

color region of said color chart image;

An extracting step of calculating said representative color signal value of said

color region on the basis o f color signal values in said color signal value extracting

region and extracting the same;

A displaying step displaying said color signal value extracting region along with

said color chart image on display unit; and

A determining step of determining correctness of said representative color signal value on the basis of said color signal value extracting region and said color chart image which are displayed on said display unit.

Regarding claims 2 and 3: In addition to the like teachings of claim 1, the prior art fails to teach;

A characteristic value calculating step of calculating at least one characteristic value for determining correctness of said representative color signal value, on the basis of color signal values in said color signal value extracting region; and

A determining step of determining correctness of said representative color signal value on the basis of said characteristic value.

Regarding claim 5: An apparatus for extracting at least one representative color signal value representing each color region from each of a plurality of color regions in a color chart image comprising:

A display unit displaying various information;

A region decision for deciding a color signal value extracting region for each color region of said color chart image;

An extraction unit for calculating said representative color signal value of said color region on the basis of color signal values in said color signal value extracting region and extracting the same; and

A display control unit for making said display unit display said color signal value extracting region along with said color chart image.

Regarding claim 6 and 7 cites: In addition to the like teachings of claim 5, the prior art fails to teach;

A characteristic value calculation unit for calculating least one characteristic value for determining correctness of said representative color signal value, on the basis of color signal values in said color signal value extracting region;

A determination unit determining correctness of said representative color signal value the basis of said characteristic value.

Regarding claim 8: A computer readable record medium storing a color signal value extracting program for realizing a function of extracting least one representative color signal value representing each color region from each of a plurality of color regions a color chart image by a computer;

Said color signal value extracting program making said computer function as:

A region decision unit deciding color signal value extracting region for each color region of said color chart image;

An extraction unit for calculating said representative color signal value of said color region on the basis of color signal values in said color signal value extracting region and extracting the same; and

A display control unit for making a display unit display said color signal value extracting region along with said color chart image.

Regarding claim 9 and 10: In addition to the like teachings of claim 8, the prior art fails to teach;

a characteristic value extraction unit for calculating least one characteristic value for determining correctness of said representative color signal value, on the basis of color signal values in said color signal value extracting region; and

a determination unit for determining correctness of said representative color signal value on the basis said characteristic value.

Regarding claim 11: A method for creating a color transformation table for a color input device-comprising steps of:

a color chart reading step of reading predetermined color chart by said color input device;

a color signal value extracting step of extracting least one representative color signal representing each color region from each of a plurality color regions color chart image read at said color chart reading step;

a colorimetric step of measuring a color each plurality of color regions in said predetermined color chart; and

a color transformation table creating step of correlating said representative color signal value extracted at said color signal value extracting step with least one colorimetric value measured at said colorimetric step in each color region to create said color transformation table for said color input device;

said color signal value extracting step comprising:

a region deciding step of deciding a color signal value extracting region for each color region said color chart image;

an extracting step calculating said representative color signal value of said color region on the basis of color signal values in said color signal value extracting region and extracting the same;

a displaying step of making a display unit display said color signal value extracting region along with said color chart image; and

a determining step of determining correctness of said representative color signal value on basis of said color signal value extracting region and said color chart image which are displayed on said display unit.

Regarding claims 12 and 13: In addition to the like teachings of claim 11, the prior art fails to teach;

a characteristic value calculating step of calculating at least one characteristic value determining correctness said representative color signal value, on the basis of color signal values in said color signal value extracting region; and

Regarding claim 14 cites: An apparatus for creating a color transformation table for color input device comprising:

a display displaying various information;

a color signal value extraction unit extracting at least one representative color signal value representing each color region from each plurality of color regions color chart image obtained by reading a predetermined color chart by said color input device;

a colorimeter measuring a color each o f a plurality of color regions in said predetermined color chart; and

a color transformation table creation unit for correlating said representative color signal value extracted by said color signal value extraction unit with at least one colorimetric value measured by said colorimeter in each color region to create said color transformation table for said color input device;

said color signal value extraction unit comprising:

a region decision unit for deciding color signal value extracting region for each color region said color chart image;

an extraction unit for calculating said representative color signal value of said color region on the basis of color signal values in said color signal value extracting region and extracting the same; and

a display control unit f or making said display unit display said color signal value extracting region along with said chart image.

Regarding claims 15 and 16: In addition to the like teachings of claim 14, the prior art fails to teach;

a characteristic value calculation unit for calculating at least one characteristic value for determining correctness of said representative color signal value, on the basis of color signal values in said color signal value extracting region; and

a determination unit for determining correctness of said representative color signal value on the basis of said characteristic value.

Regarding claim 17: A computer readable record medium in which a color transformation table creating program for making a computer realize a function creating a color transformation table for a color input device is recorded;

said color transformation table program making said computer function as:

a color signal value extraction unit for extracting at least one representative color signal value representing each color region from each of plurality color regions color chart image obtained by reading a predetermined color chart by said color input device;

and a color transformation table creation unit for correlating at least one colorimetric value of each plurality of regions in said predetermined color chart with said representative color signal value extracted by said color signal value extraction unit in each color region create said color transformation table for said color input device;

when said computer is made function as said color signal value extraction unit, said color transformation table creating program making said computer function as:

a region decision unit for deciding a color signal extracting region for each color region of said color chart image;

an extraction unit for calculating said representative color signal value of said color region on the basis of color signal values in said color signal value extracting region and extracting the same;

a display control making a display unit display said color signal value extracting region along with said chart image.

Regarding claims 18 and 19: In addition to the like teachings of claim 17, the prior art fails to teach;

a characteristic value calculation unit for calculating at least one characteristic value for determining correctness of said representative color signal value, on the basis of color signal values in said color signal value extracting region; and

a determination unit for determining correctness of said representative color signal value on the basis said characteristic value.

Regarding claims 20 and 21: A method for creating a color transformation table color output device comprising the steps of:

a color chart outputting step giving predetermined color signal values to said color output device make said color output device output a predetermined color chart;

a color chart reading step of reading said predetermined color chart by a color input device;

a color transforming step transforming a color chart image read at said color chart image read at said color chart reading step into an image expressed in a device-independent color space on the basis of a color transformation table for said color input device;

a color signal value extracting step of extracting at least one representative color signal value representing each color region from each of a plurality color regions in said color chart image transformed said color transforming step; and

a color transformation table creating step of correlating said predetermined color signal value given to said color output device at said color chart outputting step with said representative color signal value extracting step in each color region to create said color transformation table for said color output device.

Regarding claim 22 and 23: An apparatus for creating a color transformation table for color output device comprising:

A color signal value giving for giving predetermined color signal values to said color output device in order to make said color output device output a predetermined color chart ;

a color input device for predetermined color reading said chart outputted from said color output device;

a color transformation unit for transforming a color chart image read said color input device into an image expressed in a device-independent color space on the basis of a color transformation table said color input device;

a color signal value extraction unit for extracting least one representative color signal value representing each color region from each of a plurality of color regions in said color chart image transformed by said color transformation unit; and

a color transformation table creation unit for correlating said predetermined color signal value given to said color output device with said representative color signal value extracted by said color signal value extraction unit in each color region to create said color transformation table for said color output device.

Regarding claims 24 and 25: A computer readable record medium in which a color transformation table creating program for making computer realize a function of creating a color transformation table color output device is recorded;

said color transformation table creating program making said computer function as:

a color signal value giving unit for giving predetermined color signal values to said color output device in order to make said color output device output a predetermined color chart ;

a color transformation unit for transforming a color chart image obtained by reading said predetermined color chart, which is outputted from said color output device, by said color input device into an image expressed in a device- independent color space on the basis of a color transformation table for said color input device;

a color signal value extraction unit for extracting at least one representative color signal value representing each color region from each of a plurality of color regions in said color chart image transformed by said color transformation unit; and

a color transformation table creation unit for correlating said predetermined color signal value given said color output device with said representative color signal value extracted by said color signal value extraction unit in each color region to create said color transformation table for said color output device.

Regarding claim 26: A method for checking gradation maintainability of color input device comprising steps of:

A color chart reading step of reading a predetermined color chart by said color input device;

a color signal value extracting step of extracting at least one representative color signal value representing each color region from each of a plurality of color regions configuring gradations in a color chart image read at said color chart reading step;

a checking step checking gradation maintainability of said color input device on the basis said representative color signal value extracted at said signal value extracting step;

said color signal value extracting step comprising:

a region deciding step of deciding a color signal value extracting region for each color region of said color chart image;

an extracting step of calculating said representative color signal value of said color region on the basis of color signal values in said color signal value extracting region and extracting the same;

a displaying step of making a display unit display said color signal value extracting region along with said chart image; and

a determining step of determining correctness of said representative color signal value on the basis of said signal value extracting region and said color chart image which are displayed on said display unit.

Regarding claim 27 and 28: In addition to the like teachings of claim 26, the prior art fails to teach;

a characteristic value calculating step of calculating at least one characteristic value for determining correctness of said representative color signal value, on the basis of color signal values in said color signal value extracting region;

Regarding claim 29 cites: An apparatus for checking gradation maintainability of color input device comprising:

a display unit for displaying various information;

a color signal extracting at least one representative color signal value representing each color region from each of a plurality of color regions configuring gradations in a color chart image obtained by reading a predetermined color chart by said input device; and

a check unit for checking gradation maintainability of said color input device on the basis said representative color signal value extracted by said color signal value extraction unit;

said signal value extraction unit comprising:

a region decision for deciding a color signal value extracting region for each color region in said color chart image;

an extraction unit for calculating said representative color signal value of said color region on the basis of color signal values in said color signal value extracting region and extracting the same; and

a display control unit for making said display unit display said color signal value extraction region along with said color chart image.

Regarding claims 30 and 31: In addition to the like teachings of claim 29, the prior art fails to teach;

a characteristic value calculation unit for calculating at least one characteristic value for determining correctness said representative color signal value, on the basis of color signal values in said color signal value extracting region; and

a determination unit for determining correctness of said representative color signal value on basis of said characteristic value.

Regarding claim 32: A computer readable record medium in which a gradation maintainability checking program for making a computer realize a function of checking gradation maintainability color input device is recorded;

said gradation maintainability checking program making said computer function as:

a color signal value extraction unit for extracting at least one representative color signal value representing each color region from each of a plurality of color regions configuring gradations in a color chart image obtained by reading a predetermined color chart by said color input device; and

a check unit for checking gradation maintainability of said color input device on the basis of said representative color signal value extracted said color signal value extraction unit;

when said computer is made function as said color signal value extraction unit said gradation maintainability checking program making said computer function as:

a region decision for deciding a color signal value extracting region for each

color region said color chart image;

an extraction unit for calculating said representative color signal value of said

color region on the basis of color signal values in said color signal value extracting

region and extracting the same;

a display control unit for making a display unit display said color signal value

extracting region along with said color chart image.

Regarding claims 33 and 34: In addition to the like teachings of claim 32, the prior

art fails to teach;

a characteristic value calculation determining correctness of said representative

color signal values, on the basis of color signal values in said color signal value

extracting region; and

a determination unit for determining correctness of said representative color

signal value on the basis of said characteristic value.

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Haikin et al. (US. 6512845), Shimada (US. 6343194) and

Schwartz (US. 5644509) are cited to show related art with respect to color adjustment

for input/output devices.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tia A Carter whose telephone number is 703 - 306-

5433. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly A Williams can be reached on 703-305-4863. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Tia A Carter
Examiner
Art Unit 2626

TAC
1-6-05

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER